

FLYING, SUBMARINING AND MINE SWEEPING

BY
JANE ANDERSON
AND
GORDON BRUCE

in the "Daily Mail," the "New York Tribune" and
the "New York Sun."



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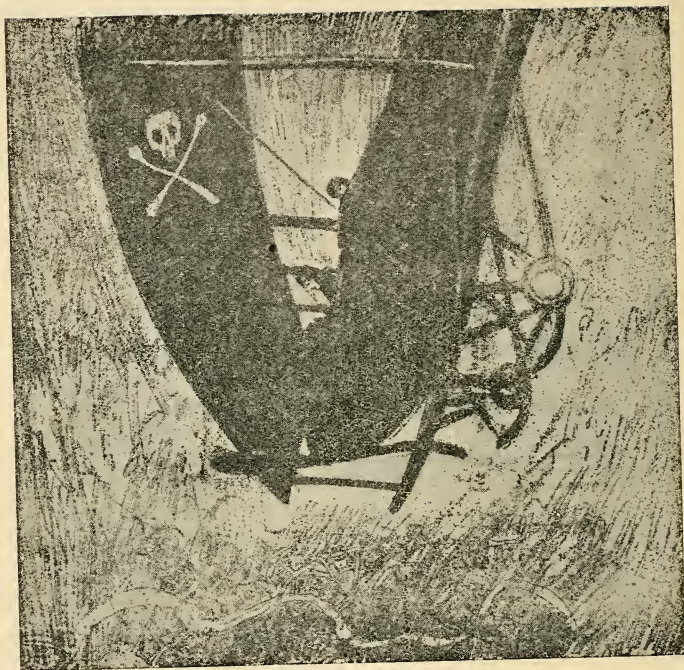
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This pamphlet is composed of four articles, two by JANE ANDERSON; one on Looping the Loop over London, and the other on the Submarine at Work, the former published in the "*Daily Mail*" and the "*New York Tribune*," the latter in the "*Daily Mail*" and the "*New York Sun*." Also two by GORDON BRUCE; one on the Flying Corps, and one on Mine Sweeping, which were published in the "*New York Tribune*," and in many newspapers of Great Britain.

**FLYING, SUBMARINING
AND MINE SWEEPING.**

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Seven thousand feet above Hyde Park, an American Girl looked straight ahead and saw "the roof of the Sky" from England's finest Warplane.

LOOPING THE LOOP OVER LONDON

BY JANE ANDERSON.

THE MARK OF THE DEATH'S HEAD.

From the day of the mediæval archer, who notched his crossbow, to the day of the Western bad man, who notched his gun, men have always sought to preserve some mark of military prowess, some tally of their victims. This war has not changed human nature. The modern military aviator, the only soldier who still fights single-handed, does not notch his gun; he paints a death's head on the wing of his 'plane to show that he has vanquished his foe in open combat.

In a British military aeroplane, painted black, and designed for pursuing Zeppelins at night, I flew across London, and, at a height of 7,000 feet, looped the loop over Hyde Park.

It was through the courtesy of the War Office that I was permitted to make this flight, to start from one of Britain's finest aerodromes and see, spread in a clear coloured panorama, one mile and a half below me, the houses and the streets of the greatest city in the world.

I do not under-estimate this privilege; I do not under-value it. I am the first woman to make a flight across London, in one of His

Majesty's war machines ; I am the first woman who has been presented by the War Office with a view of Hyde Park from an altitude of almost eight thousand feet. I made this flight in a British biplane, designed and built by the Royal Aircraft Factory. I need no further assurance of the confidence placed in this plane by the R.F.C. It is sufficient that they should have elected to send her on a journey across London with a woman passenger.

In the great field from which I started, the turf was broken by patches of black mud, and the grass was beaten down by the heavy rain of the morning. Overhead a light mist hung above the roofs of the hangars. It was not an auspicious day for flying.

But, on the wooden runway, with her wheels blocked, and her black 'planes silhouetted against the sky, a biplane was waiting. She was beautiful—this machine. There was power in the sweep of her wings ; there was power in the shining blades of her propeller. She rested, motionless, with the light on her wires and the black oval of her fusilage, with her nose facing toward the white circle which marked the centre of the field.

But it was plain that she was not the product of peace. Like the other machines

in the big hangar fronting the field, she was constructed for the greatest possible stability, strength and endurance. She was a fighting 'plane. She had been built for preying, for spoliation, for that legitimate destruction which is war.

Her two Lewis guns, of blued steel, were mounted on galvanized brackets; they were particularly businesslike—those guns. But it was not her black, compact fusilage, not her machine guns, which set her apart irrevocably for the purposes of war, for the purposes of death. It was, instead, a little emblem painted on the under side of her upper surface. It was painted in pure white, this emblem. The lines of it were clean and broad. It was a death's head. Skull and crossbones.

It was a bit startling—this. I knew that in five minutes I was going to be sitting staring up at this pleasant symbol, with several thousand feet of excellent country air below me, and I was not consoled.

I looked at it. I had to.

"Oh, *that*," said the major (and he made a large and eloquent gesture toward the dozen or more machines marked in like fashion), "means that she's brought down a Zeppelin on her own."

And so, in one moment, I plumbed the significance of official statements. And this by the smile of one major of the R. F. C.

Then I climbed aboard, and was strapped in. The observer's seat, where I sat, was a wide seat, and the fusilage formed my arm rests. There was plenty of foot space. Captain Thomson, who was my pilot, got into his seat behind me. To my right, almost above me, the death's head looked on.

We circled the field, headed into the wind and were off.

I mean, we dived up into the sky. Now, I have seen getaways; that is, I have watched the smooth and tranquil lifting of machines from the earth, and the steady, upward climbing into the clouds.

But we didn't do this. When we left the ground, we left it. It was good climbing. It was good and stiff. The black nose of the biplane pointed straight to the sun. I saw, swiftly, visions of a stalled motor, of a rapid backward slide, of a great many things. But this was because I did not know my pilot, because I did not know the true quality of our engine. Running steadily and smoothly, she pulled us up toward the white bank of cloud high above the

sheds. Then, after a slow, circular climb, Captain Thomson turned her towards London. And I knew that there could have been no better choice in my pilot.

Below us the roofs of the hangars dropped away, and I saw, over the whirring propeller, the great curve of the Thames—the wide, splendid sweep of grey water, spanned by bridges. On one side were green fields and trees; on the other I could see the coloured roofs of scattered houses. I saw even the windows of these houses—small, bright squares. In a lane, running through a meadow, I watched two men walking, one of them a little in advance of the other.

Where two streets met, there was a house with a red roof—a big house set a little apart from a long row of cottages. While I looked at this red roof the colour of it changed; from a bright vermilion it became mauve—one small, clear square of mauve.

I turned to look at the two men who were walking down the road. They had stopped moving; they had grown smaller. They were quite close together.

I looked again at the big house with the red roof. But it had merged with the line of

little cottages ; it no longer stood apart, with a strip of green separating it from its neighbours. There were no longer small cottages, close together, and another house near by. There was only one unbroken roof, one clear line of colour. I had risen 6,000 feet above a little village which is on the outskirts of London.

The two men in the lane had disappeared. I saw, far below me, the white roads, crossing and re-crossing, and the bright green of the plains. But there were no longer any people ; there were no longer trams and 'busses and motors. Only an hour before I had passed through this village ; I had passed men and women in the street, I had seen their small cottages with gardens before the white doorways, and beyond, the big meadows which slope down to the river—broad, smooth fields, bright with buttercups. But I looked down, over the edge of a black 'plane, and I saw only a great checkerboard of green and white ; it was made of white roads and green fields. And I saw, in places, narrow lines of clear vermilion and mauve. These were the houses of human beings.

In this swift, upward climbing, there was no sense of rising. Before me the blades of the propeller were flashing even in the grey light ; on either side were the wide, black wings,

steady, miraculously solid. I was filled with a sense of security; for reasons of its own the face of the earth elected to change its contours, to assume new colours, to permit its sloping hills to level themselves, and become one with the little blue valleys—to make of the broad Thames a narrow arc of silver.

And from above I watched this. I saw the roads, the beautiful roads of England, become white threads on a clear background of green; from certain centres they reached out, spreading, then converging anew. They were extraordinarily immaculate, these fine white threads, uniting England, confirming the solidarity of her villages.

Then I found that I had come into a bank of cloud. And, strangely enough, this white vapour increased, mysteriously, my sense of security. There was an extraordinary impression of solidity, of substance, after my journeying through the clear higher air. I watched, on the aluminum rim of the windshield, a row of clear drops, like beads, forming and reforming. The white cloud was condensing to make bright crystals for us, little opalescent chains that broke, then fashioned themselves anew.

The mist in front of me cleared, and the white vapour became transparent.

I looked down. Below me, I saw, in one vast, endless cyclorama, the roofs and grey streets of a city, with a river bounding them. The roofs were a deep, lustreless purple. In the distance I saw a little grey disc, faintly outlined. This was St. Paul's. I was flying above the city of London.

I thought, for a moment, that it was not true ; that I—because of one man who was piloting me through certain uncharted spaces above the world—was not leaning over a little rim of painted iron and staring down at the greatest of all cities ; that those fine lines of purple which we saw were not houses in which people lived, houses in which people worked, houses where men and women fulfilled the appointed round of small incidents which make up the story of the world. In those small houses there could not be people who were fighting a great war ; there could not be tragedy and suffering and hope and courage and faith—down there.

As far as I could see on every side of me were roofs—more and more roofs of houses. I do not think that, ever before, I had understood the meaning of a city, of this tremendous focusing of labour, of intention, of design. There was such an impression of unification, of such vast concentration of effort. . . . And

in each one of those houses there were people who were taking part in this great, new crisis of the world. This city was London. This city was the centre and the source of the power of England; this city was dictating the destiny of thousands upon thousands of human beings, who were fighting for the integrity and the endurance of their nations.

Yes, I believed that I was flying above the greatest city of the world. I believed in the miracle. I watched the edge of the 'plane passing over London, as if it were pushing back, evenly, street after street, and row after row, of grey buildings. And there suddenly came into my mind, without preface, what enormous industry had gone into the making of one city—antlike industry. It was such patient labour, this marking of the earth with dwellings and tunnelings and odd-shaped heaps of stones and mortar. Tremendous! . . .

And I thought suddenly, of the aircraft of the enemy which are sent upon occasions to wreak vengeance upon London. I saw, for the first time, this undertaking in its true proportions. In the clear daylight I could distinguish no individual house, no block of houses, no streets, no **a**venues. Certainly darkness, that extraordinary darkness of London,

at night, would not have helped me. I understood why the raids of the enemy had met with such meagre success. And I knew that however much energy might be expended by them, no vital destruction would ever repay it. The immensity of London was its own armour. I was impressed with the futility of any effort to overcome it—with the hopelessness of attempting to make any appreciable mark upon that endless sequence of grey roofs.

However, at this moment, Captain Thomson saw a cloud not too far above us, and started climbing again. I am not sure just how much that one particular cloud had to do with our sudden new ascent, but we went up, just 7,000 feet above the heart of London, and, although it was not at all what I had expected to do, we jumped that cloud.

When we started up I do not know what I thought we were attempting, but this is what we did—we bore down upon that cloud, and when it was just before us, small, round, opaque, my pilot throttled his motor. We dropped. We dropped precipitately. It was rather a sensation, this sliding off towards earth. And I missed the pleasant, loud roar of the engine. We were driving a bit fast.

Then Captain Thomson threw on the motor to full speed, and brought her back to an even keel. Then—we sailed up and hurdled the cloud. It was very well done. It was a good, clean lift. We did not even so much as touch the smooth white edge of that cloud.

After this we seemed to gather speed, for reasons unexplained. That is, when I put my hand out, the wind drove harder against it, forcing it back. Below, suddenly, a big strip of green appeared in the middle of London. With that curious loss of a sense of distance and of motion which is natural enough in flying, I did not know what this green square was. I had been watching the roofs, which seemed to have darkened as we progressed; in some places they seemed wholly to have disappeared. There were whole blocks of roofless houses; they were like uncompleted cells in a hive.

But Captain Thomson explained about that bit of green, with its little white paths, which was interrupting the grey streets of the city. First, he hammered on the iron casing of the fusilage; I turned around. He made a quick gesture, reaching out towards me. I did not know what he wanted.

Then I saw that the captain was handing me a scrap of white paper, folded, about the size of a stamp.

It was a letter. It was not, however, a long letter. And there was, on one side of it, print of a somewhat miscellaneous character. This, by error, I read first and could not understand it all. Then I turned the paper over. Written on the other side of it, in pencil, were two sentences:

“We are over Hyde Park. Would you like to loop over London?”

I turned so that I could see him, and nodded. Would I like to loop over London!

Did I want to loop over London, in one of the finest of England's warplanes? Did I want to loop over Hyde Park at a height of 7,000 feet? Yes, I did.

The machine plunged headlong toward the earth. The motor was running at full blast. The world rushed up to meet us. I found myself staring at the nose of the machine, which was straight above. Her piston rods, a row of them on either side, were dancing up and down briskly. I saw them, and I saw the roof of the sky—yet I had not moved. I was still

sitting, staring straight ahead. Only I was staring at the sky, instead of the earth.

Everything was moving. Hyde Park was not where it ought to have been. The sky was not right. The nose of the machine was over my head. The planes were gone. All was wrong.

Then a slice of the earth dislodged itself and, making circles, stood on end. And another section of earth rushed into it. I saw this myself. There were some trees mixed up in it. I don't know when this was. But I saw it all.

How did I feel? I felt nothing. It was not my affair if the world was determined upon separating itself into portions and colliding. I was up in some new world, where blue immensity had substance, where men, in machines of their own making, set themselves in defiance of all laws of space, and time, and proportion. In my arms, and in the tips of my fingers, the blood was hammering; I had an impression that this was happening to somebody else. The roar of the engine deafened me; I wondered why it made so much noise. A lot of tubes and cylinders and bolts and things. . . . And London breaking up into bits and whirling off into space.

Then the nose of the machine came down in front of me, where it should have been.

And the iron strip on it was shaking again, and the two thin cables on my left were vibrating pleasantly. I looked over and assured myself that Hyde Park was down below. It was. I liked the world.

I turned and saw the captain leaning out over his windshield. He was smiling—smiling and fumbling with his goggles. Something, it seemed, had gone wrong with them. So far as I could see, this was the only mark of our having been upside down. And it was set right straight-way.

For immediately afterwards we started turning. The captain banked her very prettily, and I saw the little paths of Hyde Park between the 'planes. Somehow it gave them a wonderful perspective, this looking down the full length of the black wings.

And so we came back, over houses and white streets, to the wide sweep of the river. We came back straight towards the sun, which for the first time was shining through the mist. It seemed very close in front of us, and not brilliant, because of the grey curtain before it.

And in the little village a train was running along. Very small, making puffs of smoke. And the smoke was yellow, not the clean white

of the broken clouds which were drifting below us.

I saw, in the distance, the roofs of the hangars. I was waiting for the white circle in the centre of the field to show up against the green.

We headed toward the aerodrome. Above the patch of grey which was the roof of the sheds, two white 'planes were circling. And high above a dark line of trees a big ungainly kite-balloon hovered, almost motionless. Evidences of war ! . . .

We dropped down, spiralling. It was a double spiral Captain Thomson made—and a particularly beautiful one. Certainly the choice of my pilot had been a good one. And certainly our landing, like our flight, was full evidence of the superb construction of His Majesty's war biplane, designed for the destruction of enemy aircraft.

I had full opportunity of discovering whatever weakness or fallibility might have been in her.

Built for the purposes of war, designed for the most difficult and dangerous work, she fulfilled every demand. I knew that the Royal Flying Corps had pride in her and faith in her. And I felt that it was justified.

THE SUBMARINE AT WORK.

By JANE ANDERSON.

In a certain dockyard in England there is to be found a splendid tribute to the prowess of British submarines and the skill of those who man them. It is one of the finest of His Majesty's undersea boats, which, with her bow twisted and bent as the result of a collision with an enemy mine in enemy waters, covered a distance of almost three hundred miles, under her own power, and arrived safely in a home port.

Through the courtesy of the British Admiralty I was permitted to see this submarine and talk with her officers and her crew.

She is in harbour, with her bow plating torn into strips and two of her torpedo tubes crushed. Her plates are crumpled ; two of her bulkheads are broken away at the bow ; but in her tubes are two unexploded torpedoes. Their casing is twisted and staved in, and the rear doors of them are jammed. But the quality of the high explosive in her torpedoes and the mechanism controlling it prevented an explosion, thus saving her from total destruction.

She struck a mine head on. The explosion smashed two of her bulkheads, broke all glass aboard her, and sent the crew sprawling to the floor of the compartments. But her torpedoes did not explode; her motors did not stop, her dials did not fail to register. She dropped to the bottom of the sea, and the water flooded in under the doors of the torpedo tubes. But within ten minutes after the collision she had been righted, had come to the surface, and turned her nose toward home.

When I looked at her lying with her exposed tubes shining in the sunlight and her bulkheads in strips of rusty iron, it seemed incredible that she had been under the coast guns of the enemy, that she could have made in her damaged condition a journey of three hundred miles, returning to a safe harbour with the information she had been sent to obtain. And, added to this, was the fact that she had made the voyage in a high sea, that for twenty hours, defenceless, she evaded the enemy patrols.

I had heard stories of German submarines sunk by a single shot, so I asked one of the officers how his boat had survived the tremendous shock of a mine explosion.

"She held because of her strength," he said. "It broke her bow and it tore off two of her

bulkheads. But the last one held. The efficiency of her pumps was not impaired. Within two minutes we had them working."

He asked me if I would not come below and see the marks of the disaster. So I followed him across a gangway and on to the narrow deck, which already was beginning to show red patches of rust. The hatch was open. Below I could see a white compartment with brass fittings.

I do not know what I had expected to find, but when I stood in this compartment I could see no traces whatsoever of the catastrophe. Directly in front of me were the rear doors of the torpedo tubes, painted a brilliant white; and to my right and left the great shining torpedoes were clamped in their racks. Only the wheel controlling the bow rudder was not true. The slender brass rod supporting it had suffered from the vibration.

This was the only mark made by the mine of the enemy. Not that it was to be estimated as minor damage. For the rudders have their part to play in the rise and the dive, and it was necessary to come up from the bottom of the sea. Not a simple matter, with the rudders not under control.

"You see," one of the officers explained to me, "we didn't know what had happened—the

water was spurting in and broken glass was everywhere. We didn't know how much of her was gone. We knew that every man aboard her had been knocked flat on his face, that the glass off the dials was rattling about underfoot. But we didn't know what was to become of us. We were as far down as we could be and, as for getting up—well, it didn't look like much of a chance. . . .

“It was fine, you know, to see the crew. They got on their feet and at their stations before the commander had time to order them there. In two minutes the order to rise had gone through to the engine room and the pumps were going. But whether we were going to rise or not remained to be seen.

“It was still enough, down there, after all the noise of the explosion. You could hear the motors turning—it's not much of a sound they make. But we were glad enough to hear it. And when we saw the bubble in the clinometer was registering, and the inclination was becoming less, we knew that matters were not as bad as they might have been.

“Then they reversed the motors. We waited. That was a bad minute. Then the broken glass began to rattle about again. We were moving.

“We weren’t long in getting up. At any time there’s nothing like coming up into the air and sunlight after you’ve been under for a bit. But this was different. Yes, this was a bit different. . . . We came up. In the silence room there was the noise of the wireless sparking. The operator was testing it. At any rate we were floating. So we started looking her over for the damage.”

This was how he told it to me—the story of that black interval when these officers and the men of the crew waited at a hundred feet below water level, not knowing whether or not their bulkheads were destroyed, whether their instruments were irreparably damaged, whether or not they would ever come up again into the sunlight.

It was his ship he seemed to think of above all other things. “We found out what we’d come into,” he said. “Knew that there was no mistake about the mine. . . . Things didn’t look particularly promising. But it all came down to whether we could make a port alone. Or whether we couldn’t.

“The wireless was working. That is, we could send; we couldn’t receive. We took a look at the bow plating and at the bulkheads.

They looked pretty bad, hanging loose in strips. But we decided we could make it. The engines were right, nothing broken there. The periscope was true. It was only her bow and her rudder that were gone.

“So we started back. We drove along under our own power. It was a bit of a sea, but we made it. The waves broke over the bridge and pounded on the one bulkhead we had left forward.

“And so,” he said and smiled, “we came home.”

Then he took me over his ship, and explained its mysteries to me. He took me through four compartments, each one resplendent with white paint and polished brass. He showed me the periscope, lowered it, and revealed to me the grey horizon with the ships ranged against it. When I marvelled at this he turned the periscope, and there flashed up before me, in a little clear image, a minute picture of men walking amidships of one of those distant vessels.

Then he explained the fine mechanism of the control room to me, and pointed out the places for the men who have certain stations in this vital compartment. I do not think that I have ever seen such delicacy of construction

as I saw in this immaculate little room, and such evidence of efficiency and concentration. This was the heart of the ship; beyond the great water-tight doors there was the engine room with the breathing pipes and white intakes overhead, and beyond another white door was the battery room. But the control room was the centre and the source of power.

When I came up on the deck I remembered this room above all the others. But the officer who was with me would not admit that one part of his ship was finer than another.

I could not blame him for this. For I looked again at her smashed bow and torn bulkheads and I remembered that she had come some three hundred miles with the heavy seas pounding her. That she had dodged the patrols; that she had sent no message asking for help. She had come back broken, battered, helpless. But the work she had been sent to do she had done.

THE FLYING CORPS

By GORDON BRUCE, in the "*New York Tribune*."

So much has been said of late about the "inefficiency" of the Royal Flying Corps, and so much general criticism has been levelled at those who are in charge of its operations that the writer asked for, and was given, permission to make a thorough inspection of the various activities of the military aerial forces and to incorporate the results in a series of articles.

To begin with, the average civilian has but a meagre comprehension of the enormity of the problem which confronted the authorities at the outbreak of hostilities with Germany. Where formerly machines had been acquired and aviators trained one or two at a time, it became necessary to arrange for the production of both men and planes in hundreds and thousands.

Not only had the manufacturers to increase their production many fold, but they faced the task of keeping up with the pace set by the Germans in the matter of improvements.

Of equal, if not greater, importance was the proper selection of a personnel. The air service is popular, and it fell to the lot of those in charge to separate the wheat from the chaff among the many thousands of applicants.

An inspection of one of His Majesty's training camps and a study of the daily routine there, gave me a fair idea of what sort of timber is required from which to fashion a first-class flyer. Also it proved beyond a doubt that there is no place in the ranks of the Royal Flying Corps for incompetents.

Let us take as an example the routine followed at one camp where hundreds of alert young men are preparing themselves to oppose the German airmen far above the grim black trenches in Flanders.

The schedule of the day begins at 6 o'clock with early morning flying. This consists of short flights of from fifteen to twenty minutes each. The beginners are accompanied by instructors in dual control machines. Those who are more advanced fly alone, or "solo" as it is termed.

At 8.15 thirty minutes is allowed for breakfast, after which flying is resumed and continued until 11.15; at 11.30 the students are required

to attend a lecture by an officer on one or more of the variety of subjects. Among these are types of engines, rigging of machines, care and maintenance of aeroplanes, cross-country flying, formation of troops (both British and foreign), all instruments used in aerial navigation, bombs, bomb-sights, bomb-droppers, and so on.

At 1.45 there is a fifteen-minute drill for officers under instruction. Those who have not come from other regiments drill in a special school for that purpose, that time may not be lost by covering the same ground twice.

From two o'clock until dark flying is in order, and all men not in the air may be found in the sheds, taking down or assembling motors and learning the details of aeroplanes. I was much impressed by the earnestness of these men. They are all anxious to get their "wings" in the shortest possible time and under the system used, they are allowed to go ahead as fast as their ability warrants.

The day ends with a lecture of an hour's duration, after dark. Thus the candidate for an aerial appointment puts in each day not less than fourteen hours of solid work, which, in itself, should do away with the idea I have heard expressed, that the men of the R.F.C. have a soft time of it.

When a man is "graduated" or pronounced ready for service, he must have done a sufficient number of hours solo flying and be able to handle several types of aeroplanes. A log is kept for each man, and in this all flights are recorded. The duration and character of the flights, and the behaviour of the machine are carefully noted, as well as any remarks of the pilot.

Thus a complete record of the work of each student is kept. When the time comes for examination the tests are held at a different base from that at which the pilot received his training. The examinations are conducted by a different set of officers, so that there will be no opportunity for favouritism.

It is interesting to note the spirit of fairness which prevails in such schools. While in several cases which came to my attention the pilot was ready for service in only a few weeks, there are students who have been at work seven months or more and are not yet considered fit to enter active service.

With the latter, the instructors struggle along for months after the man should have graduated, giving him every opportunity to make good. While there is a fighting chance

for a candidate, he is kept on, although there have been occasions when unfitness has been evident almost from the first day.

One feature of the camp referred to above, and I presume it prevails in the others, was explained to me by the commanding officer there. It appeals to me as particularly decent and sporting. Whenever it is necessary to make an adverse report on any man the full text of the communication is shown to the man referred to, and it does not go forward until he has initialled it. Also, I am informed there has been no case here where the subject of such a report has not entirely agreed with his superiors in the criticisms made.

And, so, as far as the preparation of British air pilots goes, I am satisfied that nowhere in the world are airmen required to undergo more severe training or more rigid examinations. It would be hard for the most virulent critic to put his finger on a weak spot in this branch of the Royal Flying Corps.

MINE SWEEPING.

By GORDON BRUCE, in the "*New York Tribune*."

Duty, courage and efficiency.

These three words are the summary of my week's trip in the North Sea aboard a British mine sweeper. It is hazardous work, this sweeping the seas for enemy mines, laid under cover of darkness, by the small boats of the Germans.

Previous to my trip a dark mantle of secrecy had been flung about mine sweeping operations. And I was glad when the Admiralty saw fit to give me a glimpse of what was being done by those mysterious boats which go out from certain naval stations with the regularity of clockwork, to return and make a casual report of so many German mines destroyed.

Sometimes they do not return. Then there is mourning in certain English households—mourning softened by the knowledge that the husband or brother or son went to his death

with the traditional bravery of British seamen. That he died in the service of his King.

It was while en route to the naval base from which I started that I had experience of another kind of efficiency—that of the police. Fortified with my Admiralty permit, I left the train at the point where I had been instructed to take a boat to the mine sweeping station.

Within two seconds after I stepped from the carriage, I found myself confronted by a constable. “You are a non-resident,” he said. “Where is your identity book?” I hadn’t it with me.

I flashed my Admiralty papers. But they did not impress him. The police had their own job to look after, he explained most courteously, and a pass to the Kingdom of Heaven would be worthless, as far as they were concerned, unless stamped by a police official.

And so they carried me away to the station house, and I was properly grilled for an hour or so before these cautious and conservative officers would suffer me to proceed.

On my arrival at the naval station I was received cordially by the commodore in command. At mess that night there were a number of visiting officers from various branches of the

service. And during the evening I got some fresh ideas of what the British Navy stands for.

These men told of the most thrilling experiences in the most casual manner. And each one seemed to consider the other fellow's job most dangerous.

"Those mine sweeping chaps are welcome to their little berths," said a coast defence officer. "Fancy prowling about the sea looking for a mine to blow you up."

"Well, I'd rather fish for mines than lie in my bed waiting for a Zep to drop a bomb on me," replied the chief mine sweeping officer of the station. And so on.

They told me much about mine sweeping. They explained the method by which the seas are kept clear. They drew diagrams to illustrate the mechanism of mines, paying due tribute to the ingenuity of the enemy. I was amazed at the detailed knowledge which they had of German activities. They told me when and where the deadly explosives would be placed, and certain prophecies made at that table turned out later to be correct.

But what impressed me was the bravery and optimism of the men. Fear is not in their vocabulary; yet there were present four officers

whose ships had been sunk under them. It was all in the day's work.

It was while sitting there that I first realised that Britain is keeping the seas clear not only for her own commerce, but the commerce of the world.

"Of course there is nothing else for us to do," an officer told me. "But it has turned out to be a big contract since the Germans elected to sow mines in the open sea. Shows how much they care for neutral shipping, doesn't it?"

It was somewhat startling to learn how many hundreds of boats and thousands of men are engaged continuously in harvesting those murderous seabombs. "Fishing," they call it. So next morning I went "fishing."

It was a hopeful start, because as we put out from the quay in the dim light of early morning, the captain of the sweeper promised faithfully to take me where the "fishing" was good—where he was certain the Germans had laid mines.

Another boat, a sister to ours, left harbour at the same time. She was our other half—for British mine sweeping operations require two boats while the Germans employ but one. The

naval men say that the latter system is far less effective and more expensive in the long run.

For many hours the boats travelled along side by side. I stood on the bridge with the captain, who seemed always there. He was a young man, small of figure, but his alert, weather worn face showed the stuff he was made from. He was modest, and while he talked freely of the experiences he had encountered during the last sixteen months, always the credit went to somebody else, and never was there any mention of peril. He preferred to talk of his wife and two little girls down in Surrey.

A deck hand came up the ladder and handed up two pneumatic life belts. The captain silently passed one to me. After we had fastened them securely, he glanced at the chart and compass. Then he gave a command, and a signal was flashed to the other boat. Thus the first preparations were made for our "fishing."

The other boat nosed easily alongside. There was a clanking of machinery, and she made off again, carrying one end of a heavy steel cable. Several hundred yards away she resumed her course, while the cable sagged far down beneath the surface of the water. That was all—we were sweeping.

“Now, then,” said the skipper, “we are on the job. The Germans sneak out every night and sprinkle mines here, here and here”—indicating the locations on the chart.

“They adjust the mooring cables so that the mines will be just under water at low tide and a ship cannot possibly have any warning. Devilish thing, isn’t it?”

So we ploughed along—very slowly—keeping abreast of the other vessel, and with nothing to show that we were connected except a few feet of cable where it ran down the side into the apparatus which keeps it below the surface. It was quite monotonous, and a bit dreamy—this crawling along over the North Sea with nothing happening. And that is what we did most of the time I was aboard that vessel. Shooting at ducks and bits of driftwood with a Winchester rifle was the most pleasing diversion.

It was late in the afternoon that we made our first catch.

A sudden tightening of the cable made it clear that we had hit an obstruction. There was just a slight tremor all through the boat. Everybody stepped to the rail and gazed intently into the water. “That’ll be one,” said the commander, as the cable relaxed.

Sure enough, it was "one." The Boche mine broke the surface of the water and floated free, her mooring of one inch steel cut off as cleanly as if with a mighty pair of shears. As it rolled lazily in the swell, it reminded me of a great black turtle with spikes on its back.

"Now," said the captain, "is where our fun comes in."

The boat manœuvred until the mine lay about eighty yards to starboard. Four of the men lined up at the rail. As many Winchester rifles spoke. Then the men bent eagerly forward to see what would be the effect of the volley. Luck was theirs that time. The steel bullets had punctured the air-chamber of the mine, and slowly—almost reluctantly, it seemed, the ugly thing sank from sight.

The young commander smiled as he directed the renewal of operations. "There goes two hundred pounds of good German T. N. T.," he chuckled. Then he told me an astounding fact.

Under the Hague regulations, to which Germany was a subscriber, he explained, all mines are fitted with a device which renders them harmless when they have broken from their mooring cables. This, so that innocent or neutral vessels may find some degree of safety on the high seas away from the war zones.

But, he said, while the safety attachment may be found on the German mines, right enough, somehow, it fails to work. It was very technical, his conversation on this point, and not easy to grasp in detail. But I gathered enough to know that springs and valves may be so tampered with, that the mine is quite as deadly when floating free as when properly moored.

I found out about it soon enough, for next morning we caught another one. As the shout from the lookout announced that the mine had come to the surface, the commander sent below for two rifles. When they had been brought, he produced several boxes of cartridges containing leaden bullets.

"It may take some time," he said, "but we will try to explode this one. The lead will not penetrate the steel walls of the air-chamber, and after a bit we may hit one of the horns."

It did take some time—thirty minutes, to be exact. For at eighty yards, those five tiny horns, plungers or triggers, as they are variously called, do not present much of a target. But at last a chance shot from one of our rifles found one of them.

There was an explosion that made our teeth rattle, while a huge volume of black smoke

belched upward into the still air. And a shining column of water shot straight up through the black cloud to a height of fifty or sixty feet.

It was a remarkable sight. Above the ominous smoke-cloud the column of water glistened in the morning sun. Below, it was dull and grey. And both parts of this perpendicular jet were visible at one time—just for a fleeting second. Then the water poured back through the smoke, and the grim cloud drifted off over the waste of the North Sea. . . .

And we went on sweeping.

I looked at those men who go out day after day. Who wear their lifebelts continuously. Who take their tea on the decks while they peer over the rims of their cups for the death that lurks in those sombre waters.

I thought how fine was their devotion to their duty; how great a part they are playing in the war—out there alone where their deeds are attended with no sounding of trumpets, where they give to their work the same quality of bravery that is required of the man in the trenches.

And as I glanced at the inscription over the cabin which read, "England Expects Every Man to Do His Duty," I knew that England would not be disappointed.

